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EXAMINER

NGUYEN, CAO H

ART UNIT PAPER NUMBER

2173

DATE MAILED: 07/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/723,607

Applicant(s)

ANDRIEU ET AL.

Examiner

Cao (Kevin) Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-37, 39-66, 179-184, 186 and 187 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-37, 39-66, 179-184, 186 and 187 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-10, 15-16, 21-28, 32-39, 41-49, 61-66, 179-181, and 183-187 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,507,353 to Huard et al. (hereinafter Huard).

Referring to claims 1, 39<sup>1</sup>, and 85 a software application including a personal narrative agent[s] (actor with behavior module and action generator; col. 3, line 31 and Fig. 2, Actor 1 box) for providing instructions to one or more processors to create and manage multiple dynamic customized story experiences (actor actions in environment) for a subject user in a user-observable environment having at least one object with which the subject user may interact (i.e. new actors; col. 3, line 58 – col. 4, line 11), the one or more processors permitting the personal narrative agent (actor) to perform the steps of:

selectively interacting with said at least one object to manipulate the environment in furtherance of the story experiences (i.e. col. 6, lines 21-32);

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<sup>1</sup> Claims 39 and 123 contain limitations similar to those found in claims 1, 9, and 10.

maintaining data relating to the subject user (i.e. sonic, positional, and haptic data; col. 3, lines 21-42 and col. 4, lines 12-50), the environment and the multiple story experiences of the subject user; and simultaneously managing each of said multiple story experiences (i.e. actor behaviors) each of which reaches its own narrative conclusion consistent with input and characteristics of the subject user (visitor) and any objects (other actors or objects in the environment) selected to influence said story experiences. See col. 2, lines 14-37 and col. 6, lines 22-43. Huard describes how the actions of the actors (i.e. fish, animals, or plants) are influenced by the visitor and other objects in the environment, which results in a story (presentation) of how the animals interact with their surroundings.

Referring to claims 9, 28, 39 and 67 Huard further includes a second [and third] personal narrative agent (second actor with behavior module) for providing instructions to one or more processors to create and manage one or more (multiple) dynamic customized story experiences for a second user [each user] (and their computer-controlled character/actor) in said user-observable environment having the at least one object with which the second user may interact, the one or more processors permitting the second personal narrative agent to perform the steps of:

selectively interacting with the at least one object (i.e. other actor or stimuli) to manipulate the environment in furtherance of the story experiences of the second user (i.e. col. 3, lines 44-57 and col. 4, lines 1-11);

maintaining data relating to the second [third] user (and their computer-controlled character/actor) (col. 3, lines 58-60), the environment and the story experiences of the second user (and their computer-controlled character/actor); and simultaneously managing each of said

story experiences of said second user (and their computer-controlled character/actor) independent of said story experiences of said first user (i.e. no stimuli between the first and second actor), and each of which reaches its own narrative conclusion consistent with input and characteristics of the second user (and their computer-controlled character/actor) and any objects selected to influence said story experiences of said second user, such as to enable said second user (and their computer-controlled character/actor) to pursue individual stories independent from the stories of the first user [and second user].

As examples, the interactive theater of Huard may be used with a first visitor and a first actor (i.e. a beluga; col. 8, lines 26-33) and then used with a second visitor and a second actor (i.e. other animal; col. 4, lines 55-61) wherein the second visitors experience (story) is independent to the first visitors. This may repeat for a third user. Or both a first and second [and third] visitor may interact with two [three] actors (animals) in the same environment, wherein actors/animals decide not to interact with each other (col. 4, line 4). Also, see col. 1, lines 54-67.

Referring to claims 10, 16 and 39, Huard discloses that the one or more processors permit the personal narrative agent of the subject user to perform the further step of negotiating a story opportunity involving said second user for the subject user with said second personal narrative agent uniquely assigned to the second user consistent with said one or more story experiences of said subject user. See col. 4, lines 1-11.

Referring to claims 38, Huard teaches a software application for providing instructions to one or more processors to create and manage one or more dynamic customized story experiences for each of multiple users wherein a unique personal narrative agent (actor with behavior module and action generator; col. 3, line 31 and Fig. 2, Actor 1 and Actor N boxes) is assigned to assist

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each user throughout the story experiences of the user in a user-observable environment (virtual environment) having at least one object with which the users may interact (i.e. new actors; col. 3, line 58 – col. 4, line 11), the one or more processors permitting a first and a second personal narrative agents which are respectively assigned to a first and a second users to perform the steps of:

selectively interacting with said at least one object to manipulate the environment in furtherance of said story experiences, including independently managing different story opportunities for the first and second users, respectively, consistent with said one or more story experiences of said first user and said one or more story experiences of the second user (i.e. col. 4, lines 1-11 and col. 6, lines 21-32);

maintaining data relating to the first and second users (i.e. sonic, positional, and haptic data; col. 3, lines 21-42 and col. 4, lines 12-50), respectively, and the one or more story experiences of the first and second users, and of the environment; and managing each of said one or more story experiences (i.e. actor behaviors) of said first and second users, respectively, to its own narrative conclusion consistent with input and characteristics of the first and second users and any objects selected to influence said one or more story experiences, such as to enable each of said first and second users to pursue individual stories independent from the stories of the other user.

As examples, the interactive theater of Huard may be used with a first visitor and a first actor (i.e. a beluga; col. 8, lines 26-33) and then used with a second visitor and a second actor (i.e. other animal; col. 4, lines 55-61) wherein the second visitors experience (story) is independent to the first visitors. Or both a first and second visitor may interact with two actors

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(animals) in the same environment, wherein actors/animals decide not to interact with each other (col. 4, line 4). Also, see col. 1, lines 54-67.

Referring to claims 2, 41 and 86 the one or more processors of Huard permit the personal narrative agent to perform the further step of maintaining an awareness of possible story opportunities (i.e. virtual environment database) for the subject user, activities which could trigger those stories from those opportunities, and activities which could advance those stories. See col. 3, line 58 – col. 4, line 11.

Referring to claims 3, 42 and 87 the one or more processors of Huard permit the personal narrative agent to perform the further step of maintaining an awareness of possible objects (i.e. other actors or stimulus) that could trigger and/or advance those stories. See col. 3, line 58 – col. 4, line 11 and col. 6, lines 22-42.

Referring to claims 4 and 43, wherein the possible objects in Huard include a character (actor) corresponding to a second user. See col. 3, lines 3-7 and lines 58-67.

Referring to claims 5 and 44, the one or more processors of Huard permit the personal narrative agent to perform the further steps of:

maintaining a personal data store (database) of information relating preferences of the subject user (visitor information); and

offering a story opportunity to the subject user based on information of said personal data store. See col. 4, lines 12-50.

Referring to claims 6 and 45, the one or more processors of Huard permit the personal narrative agent to perform the further steps of:

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monitoring the activities of the subject user (i.e. col. 3, lines 21-31 and col. 4, lines 12-28); and

offering a story opportunity (actor actions in an environment) to the subject user based on information gathered from said monitoring of said activities of the subject user. See col. 3, line 44 – col. 4, line 59 and col. 8, lines 50-55.

Referring to claims 7 and 46 the one or more processors of Huard permit the personal narrative agent to perform the further step of storing data about user (visitor) activities. See col. 4, lines 18-40.

Referring to claims 8 and 47-48, the information of Huard is further used for evolving a story (scene of animal interaction). For example, see col. 3, lines 31-33 and col. 5, lines 1-14.

Referring to claims 9 and 28, Huard further includes a second personal narrative agent (second actor with behavior module) for providing instructions to one or more processors to create and manage one or more dynamic customized story experiences for a second user (and their computer-controlled character/actor) in said user-observable environment having the at least one object with which the second user may interact, the one or more processors permitting the second personal narrative agent to perform the steps of:

selectively interacting with the at least one object (i.e. other actor or stimuli) to manipulate the environment in furtherance of the story experiences of the second user (i.e. col. 3, lines 44-57 and col. 4, lines 1-11);

maintaining data relating to the second user (and their computer-controlled character/actor) (col. 3, lines 58-60), the environment and the story experiences of the second user (and their computer-controlled character/actor); and simultaneously managing each of said



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story experiences of said second user (and their computer-controlled character/actor) independent of said story experiences of said first user (i.e. no stimuli between the first and second actor), and each of which reaches its own narrative conclusion consistent with input and characteristics of the second user (and their computer-controlled character/actor) and any objects selected to influence said story experiences of said second user, such as to enable said second user (and their computer-controlled character/actor) to pursue individual stories independent from the stories of the first user.

As examples, the interactive theater of Huard may be used with a first visitor and a first actor (i.e. a beluga; col. 8, lines 26-33) and then used with a second visitor and a second actor (i.e. other animal; col. 4, lines 55-61) wherein the second visitors experience (story) is independent to the first visitors. Or both a first and second visitor may interact with two actors (animals) in the same environment, wherein actors/animals decide not to interact with each other (col. 4, line 4). Also, see col. 1, lines 54-67.

Referring to claims 10, 16 and 49, Huard discloses that the one or more processors permit the personal narrative agent of the subject user to perform the further step of negotiating a story opportunity involving said second user for the subject user with said second personal narrative agent uniquely assigned to the second user consistent with said one or more story experiences of said subject user. See col. 4, lines 1-11.

Referring to claims 186-187, the negotiation in Huard can involve multiple users (i.e. a third user). See col. 4, lines 1-11.

Referring to claims 15 and 21, Huard discloses the one or more processors permit each personal narrative agent to perform the further steps of modifying the presentation of the

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environment to its respective user to further said one or more story experiences. See col. 3, lines 58-60.

Referring to claims 22 and 61, Huard discloses the one or more processors permit the personal narrative agent to perform the further step of managing scenes (i.e. col. 1, lines 38-54).

Referring to claims 23 and 62, Huard discloses the one or more processors permit the personal narrative agent to perform the further step of managing transitions between scenes (i.e. renderings; col. 3, lines 44-56).

Referring to claims 24 and 63, Huard discloses the one or more processors permit the personal narrative agent to perform the further step of managing transitions between scenes where the last scene and the next scene are in different stories (i.e. a first story with a beluga; col. 8, lines 26-33 and then another animal; col. 4, lines 55-61).

Referring to claims 25 and 64, Huard discloses the one or more processors permit the personal narrative agent to perform the further step of managing scenes which further more than one story experience (i.e. more than one actor observance) within a single scene, thereby weaving said story experiences together (i.e. the experiences of more than one animal/actor). See col. 6, lines 34-42.

Referring to claims 26 and 65, Huard discloses the one or more processors permit the personal narrative agent to perform the further step of modifying the presentation of the environment to the user to further said story experiences (environment update; col. 3, line 59).

Referring to claims 27 and 66, Huard discloses the one or more processors permit the personal narrative agent to perform the further step of modifying the environment to further said story experiences (environment update; col. 3, line 59).

Referring to claims 32 and 71, Huard teaches that the one or more processors permit the personal narrative agent to perform the further steps of:

recognizing story patterns (i.e. reactions) in actions of said subject user (i.e. col. 4, lines 12-50); and

creating and managing story experiences consistent with those patterns. See col. 6, lines 33-43.

Referring to claims 33 and 72, Huard discloses the one or more processors permit the personal narrative agent to perform the further step of maintaining consistency of said story experiences with a previous active story (i.e. previous wildlife experience). See col. 3, lines 58-67, which describe keeping a database of all story experiences.

Referring to claims 34, Huard discloses the one or more processors permit the personal narrative agent to perform the further step of creating stories based on narrative forms (i.e. grammars), said narrative forms defining structures and themes of said stories. See col. 9, line 63 – col. 10, line 5.

Referring to claims 35, Huard discloses the one or more processors permit the personal narrative agent to perform the further step of creating multiple distinct stories based on multiple narrative forms. See col. 9, line 63 – col. 10, line 5, which shows each animal will have its own grammar that controls its behavior (story).

Referring to claims 36, Huard teaches that the one or more processors permit the personal narrative agent to perform the further step of transforming a story based on a first narrative form

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into a story based on a second narrative form (i.e. the grammar of the actor may evolve). For example, see col. 1, lines 54-67 and col. 4, line 66 – col. 5, line 14.

Referring to claims 37, Huard discloses the one or more processors permit the personal narrative agent to perform the further step of creating multiple distinct stories based on a single narrative form. For example, more than one of the same type of actor (animal) may be present. See col. 4, lines 1-11.

Referring to claim 179, Huard discloses the one or more processors permit each personal narrative agent to perform the further step of creating and managing one or more of said stories (i.e. decision layers) consistent with one or more larger narrative arcs (outer decision layers). See col. 5, lines 56-64. As another example, see col. 13, lines 10-47, which describe an environmental element within the Environment, which is within the Virtual World (larger narrative arc).

Referring to claims 180-181, said stories (showing of reactions) are elements of a larger narrative arc (decision layer). See col. 5, lines 56-64. As another example, see col. 13, lines 10-47, which describe an environmental element within the Environment, which is within the Virtual World (larger narrative arc).

Referring to claim 183, Huard discloses the one or more processors permit each personal narrative agent to perform the further step of managing one or more stories for multiple users. As an example, the interactive theater of Huard may be used with a first visitor and a first actor (i.e. a beluga; col. 8, lines 26-33) and then used with a second visitor and a second actor (i.e. other animal; col. 4, lines 55-61).

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Referring to claims 184-185, the link defining a transition possibility between said first narrative form and said second narrative form is modular (i.e. is a behavior and biophysical modules; col. 3, lines 20-56.

As claims 186-187 are analyzed as previously discussed with respected to claims 179-185 above.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 182 is rejected under 35 U.S.C. 103(a) as being unpatentable over Huard.

Referring to claim 182, Huard describes a virtual world embodied in an interactive theater (col. 3, lines 4-16), which implies but does not explicitly teach the one or more processors permitting each personal narrative agent to perform the further steps of:

storing the state of said stories; and

restoring said stories from their saved state.

It is well known in the art that animation (virtual environments) played in interactive theaters may be paused (which stores the state of the story) and restarted (which restores the story). The Examiner takes Official Notice of this teaching. It would have been obvious to one of ordinary skill in the art to provide the capability to pause and replay the virtual environment of

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Huard in order to let the user study a specific image of the user or pause for lecture as described in Huard (col. 2, lines 38-53).

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 11-14, 17-20, 29-31, 40 and 50-60, are rejected under 35 U.S.C. 103(a) as being unpatentable over Huard and U.S. Patent No. 6,396,509 to Cheng.

Referring to claims 11-14, 17-20, 40<sup>2</sup> and 50-60, Huard discloses that the one or more processors permitting the personal narrative agent of the subject user to interact with both objects in the environment and the second personal narrative agent (i.e. col. 3, line 58 – col. 4, line 11 and col. 6, lines 21-32) which implies but does not explicitly teach the ability to perform the further step of negotiating for use of one or more objects with said second personal narrative agent uniquely assigned to said second user, said objects being used in one or more story experiences of one or both of said subject and second users.

However, Cheng teaches a method that uniquely assigns personal agents (avatars and bots) to a user, which are similar to the actors of Huard, that negotiate (resolve conflict) with other users' agents (avatar or bot) for use of an object that is used in a story (virtual entertainment) experience of one or both of the users. See Cheng at col. 1, lines 35-60, col. 25, lines 32-48, and col. 26, lines 17-25, which describes how priority (conflict resolution) for

objects is determined (negotiated) between avatars, wherein the priority (negotiation) may be determined by economic models and cost structures (i.e. market mechanism, bidding, etc.) and parameters set by a participant (user input). It would have been obvious to one of ordinary skill in the art to include the priority component of Cheng in the virtual theater of Huard in order for the actors to negotiate for use of an object found in the virtual environment as set forth in Cheng, such that conflicting interest in an object may be resolved as taught by Cheng.

Referring to claims 29-30, 68-69, 113-114, and 152-153, Huard discloses that the one or more processors permit interaction between the second [or third] personal narrative agent and the second user, but Huard does not explicitly teach the second personal narrative agent perform the further step of reverting computer-control of the computer-controlled character to control by a second user, wherein said character continues to pursue one or more story experiences previously controlled by computer-control. However, Cheng teaches personally assigned agents (i.e. an avatar/character representing the subject user) that may be controlled by a participant (user) or act autonomously (computer-controlled). See Cheng at col. 4, lines 41-64. It would have been obvious to one of ordinary skill in the art to revert control of the computer-controlled character (actor) in Huard to control by the second [or any] user and vice versa (i.e. revert control from a [subject] user to computer control) as taught in Cheng, to allow the second user direct participation in the virtual environment or autonomous action as supported by Cheng.

Referring to claims 31, 70, 115, and 154, Huard teaches associating characters with users (i.e. col. 1, lines 38-53), but Huard does not explicitly teach a first character object represents said subject user in the environment, and a second character object represents a second user in

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<sup>2</sup> Claims 40 and 124 contain limitations similar to those found in claims 1, 9, and 11. Because claim 11 depends

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the environment, and said second character object is controlled and managed by said second user, said second character object not being associated with a second personal narrative agent. However, Cheng teaches representing users in a virtual environment with avatars (characters), wherein an avatar may be completely controlled by a participant (i.e. second character object has no narrative agent). See Cheng at col. 1, lines 35-60 and col. 4, lines 35-48. It would have been obvious to one of ordinary skill in the art to provide avatars to represent each user in the virtual theater of Huard, such that a second avatar (character) has no narrative agent (is completely controlled by a participant) to create interaction with a user-controlled virtual stimulus as shown in Cheng.

### ***Conclusion***

7. The prior art made of record on form PTO-892 and not relied upon is considered pertinent to applicant's disclosure. Applicant is required under 37 C.F.R. § 1.111(c) to consider these references fully when responding to this action. The documents cited therein teach methods of using personal agents and methods of creating stories or generating scenes.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cao (Kevin) Nguyen whose telephone number is (571)272-4053. The examiner can normally be reached on 8:30AM-5:00PM.



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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca can be reached on (571)272-4048. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Cao (Kevin) Nguyen  
Primary Examiner  
Art Unit 2173

07/19/05